

# Challenges with semileptonic B decays to excited charmed mesons

Tuesday 2 August 2022 14:30 (30 minutes)

Less explored from both the theoretical and the experimental sides are the B-meson semileptonic transitions to the lowest lying excited charmed mesons. An accurate knowledge of the form factors of these transitions is important to understand the problem of filling the gap between the inclusive  $B \to X_c \ell \bar{\nu}_\ell$  width and the sum of the exclusive semileptonic widths. These exclusive decay modes also serve as the dominant background for  $R(D^{(*)})$  extraction. In this talk I will discuss the first calculation of the form factors in  $B \to D_1^{(\prime)} \ell \bar{\nu}_\ell$  using QCD light-cone sum rules with B-meson distribution amplitudes.

#### Preferred track

Hadronic Issues in Heavy-Flavour Physics

#### Subfield

HEP theory

## Attending in-person?

Yes

### On behalf of collaboration?

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Track Classification: Hadronic issues in heavy-flavour physics